The Threat of Transboundary Air Pollution
A Summary of Ontario's Comments on
Proposed US EPA Rule Changes
Protecting our environment.
Ontario

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Introduction

For nearly three decades, the United States Environmental Protection Agency's New Source Review (NSR) Program has been a key component of the U.S. Clean Air Act. In recent years, for example, the program has helped eliminate more than 650,000 tons of U.S. air pollution. According to the EPA's own analysis, the program could lead to additional emission reductions in the near term totaling more than 2.3 million tons.

Recent changes proposed by the EPA to its NSR Program pose a serious risk to Ontario's people and economy. To ensure that the EPA takes Ontario's health, environmental and economic concerns into consideration, the province filed a formal submission with the agency on February 17, 2006. The submission was filed by Minister of the Environment Laurel Broten and Attorney General Michael Bryant.

Ontario believes that the EPA's proposed changes to the NSR would essentially undercut the program, which has proven to be a highly effective environmental enforcement tool for many years. The proposed changes will have an adverse impact on public health and the Ontario economy, and the health of U.S. residents living downwind of major coal-fired power plants.

The threat of transboundary air pollution

More than half of Ontario's air pollution comes from the United States. In 2005, Ontario experienced a record year for air pollution, with smog advisories issued on a total of 53 days.

The impacts of transboundary air pollution from the U.S. were recently documented in two major reports on transboundary air pollution, released prior to Premier Dalton McGuinty's Shared Air Summit in Toronto, in June 2005.

The first report, prepared by scientists, engineers and consultants of the Ontario Ministry of the Environment (MOE), confirmed the magnitude and the impact of transboundary air pollution's harmful effects on Ontario's air quality. The second report, prepared by the Ontario Medical Association, quantified the costs of this pollution in terms of its health effects.

The key findings from the reports include:

- Air pollution costs Ontario $9.6 billion a year in total estimated environmental, health and other damages.
- Air pollution caused an estimated 5,800 deaths in Ontario in 2005.
- In 2005, air pollution caused nearly 60,000 Ontarians to visit hospital emergency rooms, and nearly 17,000 hospital admissions.

- In 2005, the total estimated costs related to health damages from air pollution in Ontario totaled more than $6.6 billion.

- In some parts of Ontario, up to 77 per cent of the total sulphur and nitrogen deposition comes from emission sources in the United States. And in some Ontario border communities, the U.S. contribution to ozone levels is as high as 90 per cent.

- The adverse health impacts in Ontario each year from transboundary pollution include more than 2,700 premature deaths, almost 12,000 hospital admissions, almost 14,000 emergency room visits, and health damages of more than $3.7 billion.

Air pollution also has a negative impact on Ontario's economic and environmental well-being, and causes significant damage in several ways, including:

- $165 million a year in lost agricultural productivity;
- $51 million a year in lost forest productivity;
- $310 million a year in damage to buildings and structures;
- $779 million a year in negative visibility impacts;
- $238 million a year in damages from the soiling of materials; and
- significant damage to Ontario's lakes, rivers and aquatic ecosystems through acidification, nitrogen loading and the resulting build up of algae.

The Consequences of Proposed NSR Changes

Ontario is located directly downwind of hundreds of major air pollution sources located in the midwestern U.S. states. As a result, the province cannot on its own control its air quality. Nor can it address the human costs of this pollution on its own.

Ontario's submission clearly states that the U.S. EPA is not currently doing all it can to control emissions, especially from the coal-fired electricity stations currently operating in the midwestern states. Hundreds of these coal-fired plants have been in operation for 50 years or more, and they continue in service despite the fact that most have no modern pollution control equipment.

Computer modeling by Ontario scientists predicts that Ontario's air quality will not be able to meet the Canada-Wide Standard for ozone in 2010 without significantly greater reductions of transboundary pollution from the United States.

Effective environmental leadership is needed in the U.S. to develop a plan to clean up these outmoded and environmentally harmful facilities. Unfortunately, the EPA has not shown the necessary leadership to deal with these major pollution sources. The agency's proposed changes to its NSR program represent a step in the wrong direction.

The elimination of NSR enforcement against the highest-polluting electricity generators represents a massive lost opportunity in potential pollution reductions. NSR enforcement would have the greatest health and environmental benefits between now and 2010. Failure to enforce NSR in states upwind of Ontario would mean that the province's air quality would continue to be severely impacted.

Ontario's Actions

Ontario has demonstrated effective environmental leadership to reduce the air pollution emissions that originate within its own boundaries. The McGuinty government has committed to the goal of replacing all of Ontario's coal-fired electricity generators over the next four years with cleaner, greener energy sources. This will dramatically reduce smog-causing emissions that originate in Ontario. The Lakeview Generating Station, located just west of the City of Toronto, was the first to close permanently in 2005.

The province has recently entered into agreements to purchase power from 19 new renewable energy projects, including three waterpower projects, three landfill gas and biogas projects and 13 wind farms. To date, the province has contracted for a total of 1,370 megawatts of clean, renewable energy – enough to power 350,000 homes.

In 2005, the government introduced new and updated air standards for a total of 40 pollutants to protect Ontario communities from the impacts of air pollution. This was the largest update in standards in over 25 years.

The McGuinty government also implemented the Industry Emission Reduction Plan, which establishes $S0_2$ and NOx emissions caps for industrial pollution sources in Ontario starting in 2006 and becoming even stricter in 2007, 2010 and 2015.

Ontario also operates *Drive Clean*, a mandatory Vehicle Inspection and Maintenance Program that targets the transportation sector, the province's largest domestic source of smog-causing pollution. Between 1999 and 2003, the program helped reduce smog-causing vehicle emissions in Southern Ontario by a total of 81 kilotonnes (88,000 U.S. tons). Also, *Drive Clean's* emission testing standards for diesel heavy-duty vehicles are now among the most stringent in North America.

Ontario is also providing various clean air incentives, such as a tax exemption of 14.7 and 14.3 cents per litre for ethanol and biodiesel, respectively. And as of January 1, 2007, all gasoline sold in Ontario must contain an average of at least five per cent ethanol.

Over the next five years, the province will invest a dedicated portion of the provincial gas tax – amounting to more than $1 billion – in public transit. And the government's five-year infrastructure investment plan, *ReNew Ontario*, commits the province to more than $3.1 billion over the next five years in direct provincial transit funding.

All told, these measures have helped the province reduce its annual emissions of smog-causing pollutants by almost one million tonnes (1.1 million U.S. tons) since 1990, even as its population and economy grew significantly during that period.

The Government of Canada is also taking action

Thanks to the combined efforts of the governments of Canada, Ontario and the Canadian Council of Ministers of the Environment (CCME), emission levels of the four most significant smog-causing pollutants have been reduced substantially in Ontario over the past 15 years. These achievements include:

- a 519-kilotonne reduction in sulphur dioxide (SO_2) emissions from sources in Ontario between 1990 and 2005 – representing a total reduction of 45 per cent;

- a 174-kilotonne reduction in NOx emissions from Ontario power plants, factories and vehicles between 1990 and 2005 – representing a total reduction of 25 per cent;

- a 238-kilotonne reduction in volatile organic compound emissions from large facilities, small commercial enterprises, residential sources and vehicles between 1990 and 2005 – representing a total reduction of 28 per cent.

U.S. States' Actions

Some U.S. States have taken aggressive action to control power plant emissions and protect air quality. Early in 2005, New York reached an agreement with its utilities to reduce SO_2 emissions by 123,000 tons and NOx emissions by 18,000 tons. Pennsylvania has launched a campaign to encourage older coal-fired plants to convert to new coal gasification technology to reduce power plant emissions.

These examples demonstrate that U.S. states can take action to control power plant emissions within their jurisdiction. These efforts, like Ontario's efforts, would be undermined by the proposed changes to NSR.

A Call to Action

Substantial emission reductions are needed in the U.S., especially from the electric utility sector, to mitigate the adverse health and environmental effects that Ontarians endure each year from transboundary air pollution.

To achieve these reductions, the U.S. EPA needs to strengthen and vigorously enforce its NSR rules. And unfortunately, the EPA is currently proposing to do just the opposite.

Ontario's submission therefore strongly suggests that the EPA abandon its proposed approach, reverse course, and take strong and immediate action to reduce transboundary pollution – before the province and its people are forced to pay an even harsher penalty than they do today.

http://www.ene.gov.on.ca/envision/air/transboundary/index.htm

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